



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,879	11/26/2003	John A. Kolb	TPR100016000	9336
22891	7590	11/15/2005		
DELIO & PETERSON 121 WHITNEY AVENUE NEW HAVEN, CT 06510			EXAMINER FORD, JOHN K	
			ART UNIT 3753	PAPER NUMBER
DATE MAILED: 11/15/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,879

Applicant(s)

KOLB, JOHN A.

Examiner

John K. Ford

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/29/05
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10, 11, 21, 23-34 is/are pending in the application.
- 4a) Of the above claim(s) 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10, 11, 21, 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/29/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/3/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicant's response of August 29, 2005 has been carefully considered.

Applicant's election of method claims 18-24 (including new claims 25-34), with traverse, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). It is also moot in view of the cancellation of all of the apparatus claims (claims 1-17). Applicant's election of the species of Figure 5, without traverse, is acknowledged. Applicant has identified claims 18, 19, 21, 23-28, 33 and 34 as readable on the elected species. Claims 33 and 34 do not read on the elected species of Figure 5 (they pertain to nonelected Figure 9) and hence are withdrawn by the examiner. Claims 20 and 22 have been cancelled. Claims 29-32, 33 and 34 are withdrawn.

The drawing correction labeling Figure 1 as "PRIOR ART" has been approved by the Examiner.

None of claims 18, 19, 21, 23, 24, and 25 define patentable subject matter over the prior art, because there are no limitations on which of the (inherently disclosed or transparently obvious) horizontal manifolds of the two heat exchanger portions (3 and 4) in EP '288 has to be the first and second manifold of each portion. Likewise, claims 26-28 do not define patentable subject matter either, for the reasons detailed below.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 19, 21, 23, 24 and 25 are rejected under 35 U.S.C. 103(a) as obvious over the combined teachings EP, A, 0,522,288 and any one of Lambert (USP 6,460,610) or Siler (USP 6,412,547) or Flessate (USP 4,805,693).

EP '288 has been provided here with a translation, which is incorporated here by reference here by way of explanation, and it discloses a centrally mounted coolant radiator and a split charge air cooler (CAC) with a core of the CAC mounted on either side of the radiator in the manner claimed in the enumerated claims. Regarding claim 24, see page 6 of the translation, lines 8-13. Moreover regarding claim 24, the heat exchanger does not undergo a metamorphosis into a new heat exchanger merely by affixing instructions to switch the fluids. See MPEP 2114, incorporated here by reference.

Applicant argues that no horizontal manifolds (or headers) of the charge air are shown at the upper and lower ends of each of the cores 3 and 4 of EP '288. The Examiner believes that this argument falls far below the level of ordinary skill in the art. The current assignee, Transpro, Inc has patents, not made of record by applicant, that show this entirely conventional set up (see Figure 13 of USP 6,460,610, for example). As well Modine, another firm that counsel is familiar with, discloses this as conventional in col. 1, lines 11-19 of Siler. Finally, Flassate (Figure 1, upper header 10 and lower header 12) show this conventional construction for charge air coolers.

Art Unit: 3753

To have made the two heat exchangers 3 and 4 of EP '288 with conventional top and bottom headers and vertical tubes would have been obvious to one of ordinary skill in the art to in view of any one of Lambert (USP 6,460,610) or Siler (USP 6,412,547) or Flessate (USP 4,805,693) to make the schematic diagram (Figure 1) shown in EP '288 operative for its intended purpose. Regarding, claim 25 (and 27), to have made all of the heat exchangers 1, 3 and 4 of EP '288 very wide relative to their height would have been obvious to one of ordinary art seeking to place the system in a vehicle with a wide hood but a relative small vertical height (i.e. an aerodynamic, low profile, front).

Since applicant has placed no limitations on where the first and second manifolds (or headers) of each of the two heat exchanger portions resides relative to the cores, it is clear that the inherently disclosed (or obvious) horizontal headers of EP '288 (described above) by judicious selection of which is the first and which is the second, makes the reference readable on the claim(s).

Claims 18, 19, 21, 23, 24 and 25 as well as claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP, A, 0,522,288 as applied to claims 18, 19, 21, 23, 24 and 25 and further in view of applicant's admitted prior art Figure 1.

To have oriented and connected the charge air cooler cores (with their horizontally arranged headers and their vertically arranged tubes) of EP '288 in view of the any one of Lambert (USP 6,460,610) or Siler (USP 6,412,547) or Flessate (USP 4,805,693) in series in the manner taught by the admitted prior art (first through a rear

Art Unit: 3753

upper mounted CAC core with its horizontal headers and then through a front lower mounted CAC core with its horizontal headers) would have been obvious to one of ordinary skill in the art to obtain the benefits of cooler charge air (e.g. greater density hence more horsepower and less propensity to "knock"). Regarding claim 27, see the discussion of claim 25 above. Applicant has not traversed the examiner's motivational statement.

Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claim 18 and 26 above, and further in view of Schreiner (USP 6,196,169).

Schreiner teaches in col. 1, lines 20-23, that, "for aerodynamic reasons, it is desirable in modern vehicles to have a bonnet which slopes away sharply. In the case of a certain necessary cooling surface, this necessitates a very wide and low radiator assembly". To have made all of the heat exchangers 1, 3 and 4 of EP '288 very wide relative to their height would have been obvious to one of ordinary art seeking to place the system in a vehicle with a wide hood but a relative small vertical height (i.e. an aerodynamic, low profile, front) as explicitly taught by Schreiner.

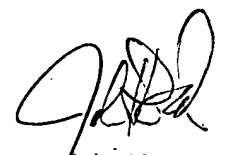
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 3753

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to John K. Ford at telephone number 571-272-4911.



John K. Ford
Primary Examiner